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## ORIGINAL DEPARTMENT.

### COMMUNICATIONS.

#### THE MECHANISM OF LABOR.

BY L. E. FRANKS, M.D.,

Of Rochester, N. Y.

[Read before the Pathological Society of Monroe Co.]

By the mechanism of labor is meant the forces brought into action by which a child is expelled through the maternal passages.

These forces may, for convenience, be divided into those of the mother and those of the child. On the part of the mother may be enumerated the *uterus, lungs, diaphragm, pelvis, perineum, and abdominal muscles*, whilst the child exerts a passive action by its presentation, suffering it to become moulded into a proper shape to correspond with the parts through which it is about to pass.

The prerequisites, therefore, are good uterine contractions, a well-formed pelvis, and dilatability of the mother's parts. Such a state of things existing, and one extremity of the child presenting, we should have every reasonable hope of delivery by nature's unassisted powers, and it is only where such a combination of circumstances cease to exist that a knowledge of the mechanism of labor puts the practitioner in a position to subvert complications and conduct his charge to a favorable termination.

For the purpose of illustrating the mechanical part of labor, it will, for all practical purposes, be as well to consider merely head presentations. And as these, as in fact all the rest, follow the same general law, perhaps it will be sufficient to adopt those of the *vertex*, of which there are

*six, three occipito-anterior and three occipito-posterior*; some, as *Baudeloque* and *Flamant*, make *eight*, by taking a right and left occipito-iliac. For my part, I think there are enough in *six*, and as the mechanism necessarily remains the same, why overburden ourselves with extreme minutiae, serving only to increase confusion.

Cephalic presentations, too, are by far the most frequent, so much so, that of 20,517 labors in the Maternité Lying-in, of Paris, no less than 15,693 were *vertex* and of the first position.

Respecting the cause of head presentations, a variety of opinions are afloat, as the shape of the womb, suspension of the fœtus by the cord, and parity of the head. Of these, I think the first and last most tenable.

The main points worthy of mention about the pelvis, in its relation to midwifery, are its *diameters, straits, axes and planes*. Now, there is *virtually* but one strait, and that is the channel occupied from the brim of the pelvis to its outlet, and described by the carus curve, which is simply a segmentary circle about 2½ inches from the posterior edge of the symphysis pubis, and in the line of which the vertex must be kept in order to avoid injuring the mother.

Of *planes* we have two kinds, as the *inclined* and those of the *straits*.

The planes of the straits may be illustrated by a flat covering fitting the pelvic *brim* for the *superior*, and a similar covering fitted to the outlet for the *inferior*; these, if projected about 1½ inches in advance of the pubes, would meet each other and form an acute angle.

The inclined planes of the pelvis are four—a right and left, anterior and posterior—demon-

strated by bisecting a pelvis through the *symphysis pubis* and median line of the sacrum, then dividing each lateral half just behind the tuberosity of the *ischium* upward three-quarters of an inch in advance of the sacro-iliac synchondroses, and intersecting the ischial spine. The anterior and posterior inclined planes will then represent themselves.

Concerning the pelvic axes, it will be sufficient to say that they are imaginary lines passing vertically through the centres of their respective planes, so as to impinge upon each other in about the centre of the channel, forming a somewhat obtuse angle, the superior being in line with the tip of the coccyx and an inch above the umbilicus, and the inferior in a line drawn from the promontory of the sacrum to the inter-tuber ischial space.

With regard to the pelvic diameters, five only require our attention—three for the brim and two for the outlet. At the brim we have a conjugate or antero-posterior, from the pubic symphysis to the promontory of the sacrum, measuring from 4 to 4½ inches; an oblique, from the sacro-iliac symphysis to the opposite acetabulum, measuring about 5 inches, and a transverse, from one ilium to the other, intersecting the conjugate at right angles, measuring 5 to 5½ inches.

The diameters of the outlet are about the same as those of the brim reversed; that is, the antero-posterior, from the arch of the pubis to the coccyx, is 5 or more, the transverse, from one to the other tuber ischia, 4 to 4½ inches.

These diameters seem to vary greatly in different individuals, and, worst of all, cannot be measured in the living subject any more than the diameters of the foetal skull whilst retained within the pelvis. Therefore, a knowledge of them is, practically speaking, useless, except when the increase or decrease is so inordinate as to become sensible upon digital examination. That, however, I shall leave to speak of when we come to *deformed, contracted, and too large pelvises*.

I hardly think it worth while to dilate upon the peculiarities of the female pelvis, so will pass that part of the subject, merely observing that it is more delicately built, its *alae* more spread, sacrum more concave, excavation more shallow, arch more perfect, and the rami of both pubes and ischium much smoother than in the pelvis of the male.

The diameters of the foetal skull worth mentioning are its occipito-mental, of 5 inches; its

occipito-bregmatic, of 3½; its bi-parietal, of 4; and its fronto-mental, of 3 inches.

From what has been said thus far, we must necessarily infer that a change takes place in the relative diameters of the pelvis and presentation, but two retaining themselves throughout the process, namely, the occipito-bregmatic circumference (3½ inches diameter), representing the successive planes of the strait from the time the vertex enters the excavation until extension, and the occipito-mental (5 inches diameter) agreeing throughout the process on a parallel with the axes of both the superior and inferior pelvic planes.

It is also well to remember that in all occipito-anterior positions the occiput emerges at the pubes, the reverse of the occipito-posterior presentations, where it emerges at the perineum. And in this connection I may state that the fifth may be converted into the first, and the fourth into the second position, by rotating the occiput and bregma on their respective inclined planes, the fifth from left to right, and the fourth from right to left, anteriorly; and by so doing we can often shorten the labor and save the mother much suffering. With regard to the frequency of positions aside from the first, some maintain that the fourth is more common than the second, that the fifth and sixth rarely occur, and it would seem as though the third was admitted more to complete the schedule than from any evidence of the senses.

Now, to close with the subject, let us suppose a case of vertex presentation, first position, and labor just commencing, the full period of pregnancy being accomplished; because, in the case of *miscarriage, abortus, or a prematurely dead foetus*, the size may be so inconsiderable as to allow expulsion in any shape. However, in our case there is a well-developed child and pelvis. The head presents at the brim, with both fontanelles on a level; uterine contractions are good; the os is well dilated, and the membranes seem about to rupture; the forehead impinges on the right sacro-iliac synchondrosis; the pains continue, and cause a flexion of the neck, so as to bring the child's chin upon its breast. This causes the vertex, which up to this time was at the posterior edge of the inner side of the left acetabulum, to fall into the pelvic excavation.

The occiput now presses against the ischium on the left, and the bregma is in close apposition on the right; pains continuing, the head is brought down in this position until it meets with

some resistance from the perineum. Now a rotatory or screw-like motion is given to it, in consequence of its gliding on the inclined planes, so that the bregma slides on the right posterior inclined plane, from right to left, into the hollow of the sacrum, whilst the occiput is slipping upon the left anterior inclined plane to the arch of the pubis. Pains now continue a greater or less time, the perineum is stretched, extension of the head takes place, the chin leaving the breast at the time the vertex emerges over the pubes.

This is at once followed by restitution, which is simply a turning of the occiput to that thigh of the mother corresponding to the position the vertex had previous to rotation.

Usually, at this stage of proceedings an interval of ease ensues, to be followed by the expulsion of the shoulders, which occupy the opposite oblique diameter to that in which the head engaged, so that in this, the first position of the vertex, the right shoulder rotates from right to left until under the arch of the pubes, whilst the left glides from left to right on the posterior inclined plane to the perineum, and which, owing to the axis of the inferior strait, is born first.

Thus, so far as mechanism is concerned, the birth of the shoulders terminates the labor, their five inches diameter being compressed to three, the thorax, hips and feet passing out without any change worthy of notice.

#### CASES OF FRACTURE TREATED IN WOOD'S HAMMOCK SPLINT.

BY JAMES WOODS, M. D.,

Of Schuyler, Nebraska.

Several different methods, and a multiplicity of devices have been offered the profession for the purpose of reduction and retention in fractures, especially of the lower extremities. The importance of this class of injuries, to both patient and practitioner, certainly warrants these efforts; the one desiring to be made as comfortable as possible, the other to be secure, and both to obtain a *satisfactory result*.

That many of these efforts have been futile is shown in the variety of abandoned appliances to be found in the storeroom of practitioners; but that a really reliable and ready instrument, one that will fulfill the indications, is much needed by the profession, is equally true.

Chancing to see the newly-devised "Hammock Splint" of Dr. Woods, of Toledo, Ohio, I was so

much impressed with its evident practicability that I purchased one, and have to report the result of three cases treated in it.

##### CASE I. FRACTURE OF FEMUR.

William Davis, aged sixteen years, while riding on horseback at high speed, the horse slipped and fell with the right leg and thigh of the rider under him. The resultant injury was a highly oblique fracture of the femur, at about the junction of the middle with the lower third. I arrived in about half an hour after the receipt of the injury, and immediately applied the "hammock splint." After the first dressing my patient experienced no discomfort during the whole course of treatment, and the only embarrassment in connection with it was that, owing to a defect in application of my extension adhesive strips, they had to be replaced during the treatment. This necessarily involved some disturbance of the fractured bone, in consequence of which I left the limb in the apparatus a week longer than I otherwise would have done.

On the thirty-fourth day, finding the union very firm, I removed the splint and applied light board dressings, with bandages. I found but little provisional callus, and on the most careful measurement could detect no shortening. The limb was in every sense satisfactory. No soreness of the heel or abrasions at any point.

##### CASE II. FRACTURE OF FEMUR.

Joshua Fogg, aged four years, fell through a hole in the floor of the hay-loft, striking on a pole in such a way as to cause an oblique fracture of the left femur a little above the middle of the bone. I immediately placed the injured limb of my little patient in the "hammock splint." I found no difficulty in keeping him quiet and the fractured bone in a state of rest entirely satisfactory; but knowing how restless he naturally was, I kept him in the apparatus a week longer than I otherwise deemed necessary, removing it on the twenty-seventh day.

The limb presented an appearance so nearly normal, that if it had not been for the marks of the adhesive plasters, it could not have been told from the uninjured one. There being no enfolding in bandages or padding with bran or cotton, there was not in either of these cases any perceptible increase of temperature. No cold water or other external remedies were used, and no anodynes were necessary to secure sleep or relief from pain. I succeeded in keeping pasteboard splints on this limb for a week, after

which it was impossible to retain them half an hour at a time, and they were discontinued. In six weeks from date of injury he was walking on the broken limb. No shortening.

#### CASE III. FRACTURE OF PATELLA.

On February 1st, Jacob Smith, aged twenty-one years, was riding at full speed across the prairie, when the horse slipping on the ice fell to his knees, throwing Mr. Smith to the right on the ice, he also striking on his knees, the right one in such a manner as to cause a fracture of the patella. I reached my patient about six hours after the occurrence of the accident. I found the knee so much bruised and swollen that it was impossible at that time to determine the question of comminution, although I was enabled to trace a transverse fracture, and that the fragments were separated about an inch.

My "hammock splint" being in use, I applied "Ballard's splint" for fracture of the patella, using adhesive strips crossed above and below the patella as directed. I also advised the application of cold water to allay the intense heat of the knee, by changing wet cloths every five minutes.

February 2d. Swelling slightly less; continued water dressings.

February 3d. Swelling still less; knee very tender; water to be applied less often. The instrument seemed to be a well-adapted mechanical device, but my patient complained bitterly of its being hard to lie upon, although it was well padded.

February 6th. Swelling and tenderness subsiding. Removed the Ballard and applied the "hammock splint." My patient expresses himself as greatly relieved, and says that "now" he is "comfortable." Continued water by means of the very simple and efficient irrigator belonging to the apparatus.

February 13th. Doing finely; little swelling and tenderness. Patient says his leg is "cool and comfortable." Discontinued cold water.

February 20th. Removed the splint to-day; but very little soreness or swelling remaining; patient can bend the knee a little without pain. Directed careful passive motion. I now trace the fracture as transverse, with about one-fourth of the upper fragment broken off, so that the patella was really in three parts.

Union is such, that now (April 1st), after more than a month of severe use, the separation of fragments is less than one-fourth of an inch.

He walks readily, but after walking some miles, the knee swells considerably.

I have thus had an opportunity to test this instrument in a variety of cases, and found it not only equally adapted, but entirely satisfactory in all, and am fully satisfied that it is just what the profession needs for the whole range of cases that, in the lower extremity, require perfect rest, with extension and counter-extension where it is indicated.

In erysipelas and abscess of the leg it would be invaluable, and would make a support for an amputated stump that could not be surpassed. I have found it easily and quickly applied, and always ready for any case that may occur. There is no need of bandages, and the limb is not only in all parts easily accessible for inspection, but there is no danger of strangulation from that cause.

The extension works admirably; and, being gradual, continuous, and controllable, it is equally adapted to the weak and strong muscles, and will, I believe, produce all that is required, and maintain it against the most powerful.

I have, in each of these cases, effected all that I desired without discomfort to my patient, and was entirely rid of that anxiety usually experienced, because I felt sure that my patient would not suffer material discomfort in my absence, and that when I returned I should find him as I left him.

The irrigator is exceedingly valuable for the purpose of making local application of fluids, and also in any case in which it is desired to protect the limb from contact with the bed clothes. To me, this instrument is indispensable. If I had but a single patient to treat in a year I would not be without it.

## HOSPITAL REPORTS.

### JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR S. D. GROSS.

[Reported by T. H. Fenton.]

#### Case I—Rupture of Muscle in Lumbar Region.

GENTLEMEN:—The patient before you, Lewis Bradford, set. forty-nine years, in carrying a piano, was struck by its slipping upon him, and he received a blow in the lumbar region, on the right side of the spinal column, between the crest of the ilium and the last rib. There is no dislocation of the bones nor of the spinal column, nor fracture of any of the vertebrae or of the ilium. There is, most probably, a rupture of one of the muscles in this region. The treat-



ment will consist in covering the parts with several layers of flannel, steeped in a solution of vinegar and water, one part of the former to three of the latter, to be applied as warm as he can bear it. The parts will then be covered by a strip of oiled silk, paper, or cloth, and the whole be secured by a towel or bandage, the latter to be kept constantly saturated. I would then recommend a Dover's powder, combined with one-sixth of a grain of morphia. This will induce the action of the skin, and relieve the pain. The patient must have a light, nutritious diet, and be kept perfectly quiet. You might, in addition, if desirable, apply a little laudanum and water to the parts. If there had been any extravasation of blood into the surrounding tissues, or any contusion of the parts, we would have applied a solution of the hydrochlor. of ammonia. The only trouble we have in these cases is to keep the patient quiet and perfectly at rest.

#### Case II—Nævoid Tumor of Right Leg.

This child, William Wilson, æt. seven months, has a nævoid tumor on the anterior portion of the right leg. These tumors are liable to form on the skin and mucous membranes. They appear most frequently on the scalp, and on the face, lips, neck, etc., rather than on the trunk. In the case before you the tumor is of a reddish color, soft to the touch, and spongy in consistence, erectile in its nature, somewhat similar to the warts of a turkey. It is composed of blood-vessels; in this case of veins in the subcutaneous cellular tissue. It is congenital, but at what time it first formed it is impossible to determine. When the child was born the growth was very small. It is free from pain, as is generally the case. In connection with this case, I might say, in passing, that we have several varieties of angioma.

The first, consisting of enlarged or hypertrophied veins in the tissues beneath the skin.

The second variety, composed of mainly enlarged arteries lying in the subcutaneous cellular tissue. Sometimes there are large aneurisms by anastomosis, having a pulsation synchronous with the action of the left ventricle of the heart. These are liable to expansion, and to profuse bleeding when ruptured.

The third are those whose characteristics are intermediate between the other two, partaking of the nature of both. In these the expansion is not apt to be so great. The second variety is most apt to occur on the eyes or cheeks, involving the soft structures; they happen also, sometimes, in the sinus of the superior maxillary bone; also in the long bones, sometimes in the head of the tibia.

In the patient before you, the tumor may be removed without danger to the parts or from bleeding. You observe I transfix the tumor with two pins, passing at right angles to each other through the base. I then apply a strong waxed ligature around the tumor beneath the pins, drawing it very tight, in order to constrict the mass and stop the supply of blood to it. In

five or six days the eschar will be detached, and we then invite the granulating process by the application of an emollient poultice. After this an ointment is applied to protect the new tissue. I will now order three drops of laudanum, to quiet the child. Sometimes, when these tumors are large and well situated, we remove them with the *ecraseur*, or occasionally with the knife.

#### Case III—Club Foot.

This child, Mary Hitch, æt. three and a half years, has an affection of a congenital nature. It is known as club foot, or equino-varus. The interior of the foot is depressed, and a lump is formed upon it, caused by the weight of the body. A bursa, or pouch of synovial fluid is formed accidentally or adventitiously, to ward the pressure from off the bones. The foot is deformed, the toes turned in, and the instep notched by a fossa, caused by a contraction of the plantar fascia. It is wider in front than is natural; the heel is retracted, being drawn up by the contraction of the tendo-achillis, and drawn in by the contraction of the tendon of the anterior tibial muscle. This should have received attention at an earlier period of life. I have operated at the age of seven or eight weeks.

When malformations are slight, a cure may be effected without the knife, by means of an apparatus alone; according to the theory of Drs. Barlow, of London, and Sayre, of New York, all cases of club foot can be cured with mechanical appliances entirely. I think the result is promoted by the use of the knife.

The tendo-achillis and the tendon of the anterior tibial muscle, and the muscles of the leg, are imperfectly developed, and strength is lost owing to a deficiency in the blood and due to a want of nutrition of the muscles after birth. There was a kind of paralysis, and hence the effect you see here.

Having placed the patient under chloroform, I make a puncture with a sharp-pointed bistoury, about an inch or three-quarters of an inch above the attachment of the tendo-achillis to the bone. This operation was first performed by Stromeyer, of Hanover, in the year 1831. Prior to that period, the attempts at division were wholly unscientific. Having made my puncture with a sharp-pointed instrument, I introduce a probe-pointed tenotome, having previously rendered the tendon tense, by pulling the foot forward. Now keeping my knife in close contact with the tendon, by a sawing motion, I divide it subcutaneously, from before backward. I now make counter pressure with my finger on the opposite side. I then press the foot in the direction opposite to the displacement. The parts are soft and yielding, and thereby facilitate the subsequent treatment. The operation is almost a bloodless one. On a few occasions I have lost perhaps an ounce of blood, owing to the fact of having divided the veins running along the border of the tendo-achillis. I now divide the tendon of the anterior tibial muscle; this brings the foot out much better. I now apply strips of plaster to hold the foot in the desired position.

and will follow this with a bandage, but this is not always done, by any means.

The apparatus used in this case is the well known shoe of Scarpa. Care must be taken in applying this, because if it is unequal, it may produce pain, chafe the skin, and give rise to ulceration. It is well to give an anodyne to relieve the pain. In this case, I shall give eight drops of laudanum. The plaster and bandage should be retained for about six days. The foot should then be well washed and rubbed with spirits of camphor. After the punctures heal, the limb ought to be well rubbed and moved, and the foot turned out. A year generally suffices for the retention of the apparatus.

In the process of healing, an effusion of lymph is poured out, and the gap between the tendons is filled up by a new substance which forms an analogous tissue. We thus gain length, and this is furthermore increased by stretching, which is possible after the new tissue is perfectly formed.

#### Case IV—Stone in the Bladder.

This child, Howard Steel, *æt.* two and a half years, is brought to us, supposed to be laboring under a calculus in the bladder. Having given the child a few whiffs of chloroform, I will proceed to sound him, first having well oiled and warmed my catheter. I now introduce the instrument, and discover, beyond all doubt, the presence of a stone. From the sound, I should say the stone was of large size.

You observe, in sounding, I move my instrument carefully from side to side. In children the detection of a stone is generally not very difficult; sometimes, however, it may happen quite the contrary, the stone being very difficult to find.

A child was brought to my clinic last fall, in whom I was told a stone had been discovered, and the presence of it determined by three gentlemen, each of whom had been satisfied of the fact as to its existence. I was only able to discover it after three successive attempts at so doing. The mother of this child tells me it has had some fever, and has been in a very poor state of health. Owing to these facts, I shall not operate on him to-day; I shall order him to be put on the use of quinine and anodynes, giving him also a light nutritious diet, with milk punches, etc.

*April 4th.* Gentlemen, I again bring before you the child in whom, on Wednesday last, I detected the presence of a stone in the bladder. Since that time he has been treated with quinine and anodynes, together with a light diet. At ten o'clock this morning he had an anodyne of ten drops of laudanum. In this case, I propose to make the lateral operation for stone, which is an easy one if the perineum is not too deep or narrow. Having placed the patient under chloroform, we make the incision on the left side of the raphe of the perineum, an inch and a quarter above the margin of the anus, and carry it downward and outward a short distance below the tuberosity of the ischium.

With my finger in the anus, I now divide the transverse muscle of the perineum, and in this case I shall lacerate instead of dividing the left lobe of the prostate gland, which in young children is about the size of an American chestnut. I now introduce my forceps, and having brought them in contact with the foreign substance, I make an attempt to seize it. Sometimes the calculus eludes your grasp, and inserts itself behind the pubes. You must in such a case press on the pubes and raise your forceps. There are two embarrassing circumstances in this operation, viz. 1. Inserting the staff and retaining it in its position. 2. Seizing the calculus. The staff must be held against the arch of the pubis, not using too much pressure. The legs of the patient are flexed on the thighs, and the thighs on the pelvis. Having seized the calculus and removed it by a gentle rocking motion, I inject and thoroughly wash out the bladder with a stream of tepid water. I then tie any vessels which may have been cut. I shall now order an anodyne to be given and the child to be kept perfectly at rest.

*April 11th.* The child is in good condition, somewhat weak, but otherwise excellently well. As yet the urine passes through the artificial channel. I shall send him home to-day, deeming him sufficiently strong and in a good state to be trusted to his mother. There has been no infiltration of urine into the surrounding tissues, and no bad results from the operation.

#### Case V—Caries of the Tibia.

Mary O'Neill, *æt.* 12 years. You notice a slight sore on the anterior portion of the right leg, which has existed since last June. It is connected with the tibia, and began with swelling; there is no pain at the present time. In all other respects the mother says the child is perfectly healthy, as she also is herself.

Having given some chloroform, I shall explore the parts with my probe, and on examination I find there is some dead bone present. We will now see what can be done with these instruments, consisting of a gouge, chisel and a pair of bone forceps. I also notice a slight swelling attended with some discoloration. It is evidently a cicatrix formed from a previous incision to relieve the swelling of the parts. This case is evidently of a scrofulous character. I shall enlarge this sore or opening and scrape out the parts diseased.

Caries is apt to appear in the long and short bones, and especially in the bones of the tarsus. Caries may be common, accidental, or specific. I shall now make an incision with a scalpel and introduce my chisel. Powerful leverage can be obtained with this instrument. I always prefer the common gouge and chisel for this purpose, in preference to the instruments made by the surgical cutler.

Caries of the bone corresponds to inflammation of the soft parts. We find much more disease in this case than we would suppose from the size of the opening. There has also been some myelitis here. The treatment will consist of the

iodide of potassium, with the bichloride of mercury, just as if you were positively certain that the case was of a specific character; these remedies have been prescribed and used under the direction of a former physician, but I shall continue them with slight increase in the dose of the mercury. In these cases, gentlemen, you should always wash out the parts with a strong solution of laudanum and water; they should be syringed out twice in the twenty-four hours; you may also apply a poultice, if you wish, and if needful you may order one-sixth of a grain of morphia to relieve any pain that may occur.

#### Case VI.—Oedematous Erysipelas of Penis and Scrotum.

This man, Charles McCoy, aged twenty-seven years, tells us that two days since his testicles and penis became very much swollen, and for which he can assign no definite cause, unless he hurt himself while in the act of jumping from a wagon a short time ago. He states he has had no gonorrhoea for four years, and no stricture at any time. He passes his water freely, and in considerable quantities; his bowels are regular; thirsty very frequently; has pain in his hips, and is chilly all the time. This is undoubtedly a case of oedematous erysipelas.

The scrotum is swollen symmetrically over its whole extent, and the raphe is much more prominent than in the normal condition. It is readily indented, but there is a slight discoloration and distinctly erysipelatous inflammation. The penis is enlarged and the foreskin swollen so as to diminish the size of the orifice of the urethra. He has also some swelling in the groins, more on the right side than on the left. He tells us he had a chill night before last. We call this, as I said before, and without hesitation, a case of erysipelas. We assume there is no rupture of the urethra or infiltration of urine into the surrounding tissue.

We have presented to us, by this case, a local manifestation of a constitutional disorder. It is caused by the disorder of the digestive organs. Dr. Abernethy first called the attention of the world to the connection of disorders of the system with local troubles. In this case an aperient of

R	Hydrarg. chlor. mit.	gr.v
	Ext. colocynth comp.	gr.v
	Pulv. ipecac	gr.j M.

Ft. pilul.

will do good, to be followed, if there is no action, by a half ounce of Rochelle salts. I shall then order him to have

R	Quiniae sulph.	gr.iiij
	Tinct. ferri. chlor.	gtt.xxv
	Morphiae sulph.	gr.½ M.

Ft. mist.

to be given four times in twenty-four hours. His diet must be regulated. He must have no solid food, and especially no liquor. The tincture of the chloride of iron has been recommended, the world over, in cases of erysipelas.

It seems to have a power of changing the condition of the blood not common to other medicines. At bedtime we will give him ten grains of Dover's powders to determine the skin. We shall enjoin on him perfect rest in the recumbent position; this treatment was for the constitution.

For the local treatment, we shall first apply a solution of iodine and alcohol, in equal parts, with a camel's hair brush over the parts, once in every twenty-four hours. Half an hour after this application has been made, we will lay over the parts two layers of flannel which have been previously wrung out of warm water, and saturate them with a solution of the acetate of lead and laudanum, over these we will place a piece of oiled silk. A considerable time is allowed to pass between the two applications, in order to prevent the lead from acting on the iodine, and producing thereby the iodide of lead. If the swelling increases, forty or fifty punctures, or small incisions, will be necessary, for the purpose of drainage.

#### Case VII.—Chronic Sore Throat.

The patient before you, Josephine —, æt. thirty years, complains of sore throat, which has existed for some time, and has become chronic. She has great pain in swallowing, but none at any other time, and little soreness. The tonsils are enlarged and inflamed in a marked degree, as is also the uvula; they are both red and discolored. Her general health is poor. She has some trouble with her liver and kidneys, and complains of neuralgia in the heart and through the entire system. There is great pain in the head. She is also a little dyspeptic. Has no flatulence or eructations. She has cold moist hands and feet, and, as a general rule, where you have cold hands you will find cold feet also, showing a poor circulation of the blood in the extremities.

These symptoms are due to the disorder of the digestion, and are the accompaniments of neuralgia and bad health. Her flesh is soft and flabby, and her sleep is poor, owing, she thinks, to nervousness. I now proceed to touch the throat with nitrate of silver, which may be applied in stick or solution. About an inch or an inch and a quarter of the stick should be taken and fastened in the barrel of a quill, the edges should be rounded off with a wet rag and the stick kept in a dry place. Care should be taken in applying this agent, as it will act as an irritant if too much be applied. The touch should be light and rapid. Professor Meigs used to speak of the antiphlogistic touch, which is a very good term. The patient should sit upon a chair, with the head thrown back, and in a position where a good light can be obtained. In urgent cases this remedy may be applied once every twelve hours; in others once every twenty-four hours, or it may be used only every two or even three days. The application is followed by some pain, uneasiness, and trouble. Sometimes we apply leeches, behind and below the ramus of the jaw. Twenty-five foreign

leeches would be about the proper number in an acute case of tonsillitis. In cases of this kind it used to be the custom to take from twenty to twenty-five ounces of blood from a man's arm; this would sometimes afford relief in a few hours.

A solution of water impregnated with alum and tannic acid, and applied with a sponge mop, or in a spray, many times proves beneficial. I prefer the mop to the spray. In children, where the use of a gargle is out of the question, the application should be made by the physician himself, or by a well instructed nurse. Many a child has been lost from the inflammation extending down the larynx into the lungs, proving fatal to life, and all owing to negligence in this respect. In these cases patients' diet should consist of mostly liquid food, such as milk, of articles containing milk, of soft boiled rice with crumbs of stale bread broken up into it, and of aliments of that description. No solid food should be taken. If there is any fever, the ordinary antiphlogistic remedies may be given; the antimonial and saline mixtures may do good. There is great pain in swallowing, and owing to the large amount of mucus deposited, a full anodyne once or twice in the twenty-four hours would prove beneficial in producing resolution. You may tell the patient to bathe the feet in hot water containing a little mustard, she or he, as the case may be, lying extended on the bed with the feet hanging over the edge, and having them immersed in a tub containing the mixture, with a blanket spread over them to confine the steam. The foot bath is very good when properly given. You should keep the feet immersed for half an hour at a time.

The common practice in country houses, of patients sitting in a chair, with feet immersed, for ten or fifteen minutes, amounts to nothing at all. At the same time with the bath a hot lemonade or whiskey punch may be given. Before the bath you may give about ten grains of Dover's powder with a little morphia. This will soothe the parts, promote sleep, and the patient will rise in the morning in good condition. I will now order for this woman a prescription which will tend to equalize the circulation, viz:—

R. Quinæ sulph.,	gr. ij
Ferri sulph.	gr. ss
Morphiæ sulph,	gr. 1-20. M.
Ft. pil.	

To be given three times in the twenty-four hours.

When the patient's skin is clammy, as a rule, you may give quinine and iron, or some preparation of bark and iron, with a little morphia. Sir Astley Cooper has told us that a man exposed on the top of a stage coach during a journey of several days would derive great benefit from a little opium, which almost always would prevent him from taking cold.

I myself have found benefit from this agent in this respect. I frequently, when going on a journey in the railway cars, take a little mor-

phia to prevent cold. It is much better than the thickest shoes and stockings for this purpose.

## CHARITY HOSPITAL, BLACKWELL'S ISLAND, NEW YORK.

SURGICAL CLINIC OF PROF. JOSEPH W. HOWE.

### Sarcoma.

GENTLEMEN:—This patient has a large tumor, situated on the side of the neck, extending from the parotid gland to the lower portion of the thyroid cartilage. It passes under the lower border of the jaw, and involves the sterno-mastoid muscle. The tumor is hard and compact. It is not nodulated. The overlying integument, and the tissues around it, are not retracted or drawn towards it. It has an independent existence. On the anterior surface you notice a large ulcer, ragged at the bottom, but clean cut at the edge. From this point there has been considerable hemorrhage. This tumor commenced nine months ago as a hard nodule; it grew rapidly, but *without pain*. The patient is over fifty years of age, and you can see that there is no special expression of anxiety about his face, no cachexia. In fact, his countenance is expressive of nothing which would point to serious disease. Now let us examine this case more critically, and endeavor to determine the class to which this tumor belongs. You can at once exclude all benign tumors, on account of the rapid growth and ulceration which you here see.

The question then lies between cancer and sarcoma. They both grow rapidly, but cancerous tumors are always accompanied by pain. This patient has had little or no pain. Hard cancer is nodulated, irregular, and extends into the tissues around, retracting or drawing everything in their vicinity towards them. A sarcoma is usually defined encapsulated, and the tissues are not retracted around it.

Cancer spreads through the lymphatics, involving them and producing a cachexia characteristic of the disease. Sarcoma does not involve the lymphatic system, and there is no cachexia with it.

Remembering the facts determined by an examination of this tumor, we are inevitably led to the conclusion that it is a variety of sarcoma.

The next question which may suggest itself to your minds is, what is sarcoma? The term is derived from a Greek word, signifying flesh. At one time, all sarcomatous tumors were supposed to be soft when cut into, and have a fleshy look. Lately, however, many tumors which do not present this appearance have been added to the list of sarcomata, and the definition is not, therefore, correct. Sarcomata have special characteristics which distinguish them from the benign tumors on the one hand, and carcinomatous on the other, occupying a position midway between the two; at times exhibiting the



utmost malignity in their progress and termination, at others, being comparatively harmless. The benign tumors consist of tissues which exist in the adult, fully developed as the representative tissue in its normal situation. Thus the fat of benign fatty tumors is the same, in its essential arrangement and character, as the fat in other parts. The fibrous tissue of a benign fibroid is the same as fully-developed fibrous tissue in other parts, and so on through the whole list. Sarcomata are made up principally of cells, few fibres, and a delicate intercellular matrix. These are young embryonal cells belonging to the different varieties of connective tissues which have stopped short on the road, and have not developed into the complete, fully-formed tissue.

The connective tissues consist of the areolar, white fibrous, and elastic tissues, bone and cartilaginous tissues, vitreous humor of the eye and cornea, and it is of the young cells of these tissues that sarcomatous tumors are developed. And all tumors which are made up of the undeveloped cells of one or other of these tissues are classed under the head of sarcoma. Therefore, as we have various tissues, we have various forms of sarcoma. The first variety has several synonyms. It is usually called the granulation or pound-celled sarcoma. This tumor is soft, encapsulated, and when cut into, a reddish serum exudes from the cut surface. Sometimes it has the fleshy appearance referred to previously. It consists of spherical nucleated cells, resembling the cells of a healthy granulating wound. In fact, it is nothing more than a tumor of granulation substance. The old name for this was *fibro-plastic*.

The second is the *spindle-celled sarcoma*. This is made up of fine stellate cells, with clear nuclei; is dense in structure. When there is much fibrous tissue in its substance it is called a *fibro-sarcoma*. The tumor under consideration in the patient before us is of this variety.

The *giant-celled sarcoma* is made up of very large cells, the largest which are found in the body. The cells are found in normal circumstances in foetal marrow. The *giant-celled sarcoma* occurs usually in bone, forming the osteo-sarcoma of older authors. The other sarcomatous tumors, such as the myxo-sarcoma, alveolar-sarcoma, etc., I shall not speak of today. The three mentioned are the principal varieties.

Now the cells of a carcinomatous tumor are epithelial in character, and have nothing to do with the connective tissue type of cells. The cells of a sarcoma are connected with the tissue in which they lie. In carcinoma the cells are found in irregular spaces between the fibres, without any connection or continuity between themselves or the tissue around them.

These are the principal points of microscopical difference which separate the two classes. They are both very malignant, both ulcerate and destroy tissue and destroy life. In the case before you, a consultation has decided against any cutting operation for the removal of this

tumor, on account of its important vascular connections. I shall endeavor to remove it by the actual cautery. I employ the cautery for the reason that the patient is losing considerable blood daily, and I do not want to ligate the common carotid artery without giving him another chance.

(Dr. Howe, with irons of various sizes, cauterized the tissues around the margin of the tumor to the depth of an inch or more, in that way destroying much of the vascular supply of the tumor. He then cauterized the surface freely afterwards. The eschar was dressed with sweet oil and picked lint.)

#### Excision of the Humerus—Caries.

This little patient is about three years of age. He has had chronic osteitis of the humerus for nearly six months. The inflammation appears to have been of a scrofulous nature. You can see the thin delicate skin, with the blue veins showing through, over the temples, and as I pass my hand over the neck, I find that the lymphatic glands are enlarged. These point to a scrofulous diathesis. The diseased bone is enlarged, and the enlargement is situated principally in its upper portion. There are two sinuses leading down to the bone, one an inch and a half below, and to the inner side of the joint, the other in front, three inches below the joint. As I pass my probe along the bottom of the sinus a grating sensation is communicated to my fingers. Further on the bone appears to be soft. It crumbles as I press forcibly upon it. This breaking down extends into the substance of the bone at this point, about a quarter of an inch. The disease may involve the joint, though I cannot ascertain that fact with my probe. I shall first cut open the tissues extending from one sinus to the other, and follow the diseased bone upward.

(Dr. Howe then made an incision along the course of the sinuses, and continuing the incision upward found that the joint was implicated. He severed the attachment of the muscles at the external and internal tuberosities, disarticulated and removed the humerus to within an inch of the elbow joint. The upper part of the wound was closed by silk ligatures, the lower part left open and a lint tent placed therein. Before closing the wound, however, it was washed, and pure sweet oil applied thoroughly to the cut surface. The lint was also steeped in oil before being inserted. Dr. Howe seems to think that the oil dressing for wounds of all descriptions is the best, and claims for it better results than any other.)

Now, gentlemen, you see that this bone is irregularly enlarged, and its surface roughened, corresponding to the opening in the soft tissues. You notice cavities extending in the same direction. At the bottom there is a mass of soft disintegrated bone.

These large cavities, as well as the minute ones in other parts, were produced by ulceration of the bone substance, a molecular death of the bone, which we term caries. The process is

similar to ulceration of the soft tissues. There are no large pieces of dead bone in this specimen. No necrosis or death of the bone *en masse*.

Necrosis and caries arise from similar causes in many instances. Cold, scrofula, syphilis, injuries, etc., excite osteal inflammation, and the termination is either in necrosis, which is the same as gangrene of the soft parts, or caries, which, as I have remarked, is like ulceration of the soft parts. Scrofula is more likely to produce caries, syphilis necrosis.

Caries occurs more frequently in children, necrosis in adults. Carious bone is recognized by its crumbling under the pressure of the probe. Necrosis by its rough, unyielding feel. When the piece of necrosed bone separates, it is called the sequestrum. The new bone which forms around it, the involucrum. The removal of the sequestrum is usually followed by cure, provided the disease has spent its force.

#### Chronic Rheumatic Arthritis of Knee Joint.—Amputation of Thigh.

This man was taken sick one year ago, with a deep-seated pain in the knee joint and a certain amount of stiffness. Two months subsequently there was some swelling around the joint, which has remained about the same to the present time.

Comparing the two joints, you can see that the one complained of is much larger than the other. And that this enlargement seems to be in the ends of the bones which enter into the articulation, rather than in the cavity of the joint. There is very little fluid in the cavity. The tibia is not in its normal position, but has been carried backward about half an inch, and rotated inward. As I press on the patella, and bring the joint surfaces in contact, a grating sensation is communicated to the fingers. From this opening in the soft parts above the joint there is a profuse discharge of fetid pus. The pus has burrowed around the lower part of the femur, and in the tissues to the right side of the joint as far down as the head of the fibula. The discharge and pain have been very great. The patient is running down rapidly. The disease has resisted all the ordinary remedies, and now it has been decided by consultation that the poor man's only chance is in amputation. But first let me say a word about the diagnosis between this case of chronic rheumatic arthritis and chronic synovitis. The former disease rarely attacks large joints. It is usually found in the joints of the fingers or toes. In these situations we are in the habit of calling it rheumatic gout or rheumatoid arthritis. In the large joints we term it chronic rheumatic arthritis. The inflammation may commence in the ligament, cartilage or bone. Usually it starts in the latter, and gradually extending, ultimately involves all the structures entering into the articulation.

Synovitis commences in the synovial membrane, and only in its last stages affects the articular lamellæ covering the end of the bone, but you never witness the enlargement of the

bone as you do in arthritis. In the latter there are also nodosities or irregular osseous growths around the joint, and eburnation of the articular surface, which is never found in synovitis. When the joint surfaces are moved over each other in arthritis, a peculiar grating is felt, which is not present in the other disease. The greatest amount of swelling in synovitis is at the sides of the joint, where the ligamentous structures are deficient or weak, and there also is the greatest amount of tenderness. In chronic rheumatic arthritis the swelling is more uniform, the pain is felt more or less all over the joint, and partial dislocation is of common occurrence, from destruction of the ligaments. The bones are not displaced in synovitis.

When arthritis attacks the small joints there is little difficulty in making a diagnosis. The peculiar deformity and enlargement you have often seen at medical clinics, and I will not dwell on them.

With regard to treatment little can be said; our main reliance is in colchicum administered frequently in small doses, friction, counter irritation, fresh air and good diet.

*Operation.*—Dr. Howe did not wish to use Esmarch's bandage in the usual way, for fear of carrying the pus which was around the joint up into the tissues. He, therefore, began the bandage above the joint, and carried it to the upper third of the thigh. He then made a circular cutaneous flap in the usual way, and removed the femur and muscles at the lower third of the thigh. The vessels were then ligated, the skin drawn over the stump and secured by sutures, and the usual dressings applied. Dr. Howe suggested that great care should be taken in dissecting up the flap, for fear of injuring the subcutaneous vessels. And for this reason the edge of the knife should be always turned inward.

## MEDICAL SOCIETIES.

### MEDICAL LIBRARY AND JOURNAL ASSOCIATION, NEW YORK.

PRESIDENT, JOHN C. PETERS.

March 27th, 1874.

#### Hip Joint Disease.

Dr. Louis A. Sayre enlivened the proceedings of the association by bringing in twelve or fifteen cases of hip joint disease, to show the benefit of treatment. He made them still more interesting by showing the photographs before and after treatment, and at the same time the specimens of bone which had been removed from each patient in the operation of excision of the joint.

Dr. Sayre took the ground that hip joint disease is independent of scrofula, and has for its origin some local injury. This is evident from the fact that many of the patients affected with the disease are otherwise quite healthy. This

universal belief, to quote the language of the president, has been a *Chinese wall* around the disease, keeping off from it unbiased inquiry. If the disease is properly treated there will never be any need of exsection of the joint, and possibly, ere long, the operation will become obsolete, from the fact that no cases demand it. It is important to examine closely the patient in the earlier stages, for if not, the case will be very liable to pass without a diagnosis; and, in examining it, there should be nothing below the patient but the hard table or the floor, and at the same time the patient should be completely naked. In the first stage we have pain and muscular rigidity. In the second we have pain continued. But the limb is flexed, everted, abducted, and rotated outward. This is the stage of effusion. In the third stage the effusion has, by ulceration, made its way outside of the capsule, and now we have a relief to the pain, and the limb, instead of being abducted, is adducted, just the reverse of the second stage. The treatment in the first stage is rest; counter irritation by means of the actual cautery to the side of the nates is productive of great benefit. But when the disease has passed to the stage of destruction of the joint exsection then becomes necessary. The operation of exsection that proves best adapted for this class of cases consists in placing the patient so as to rest on the sound side; a point is then selected midway between the trochanter major and anterior superior spinous process of the ilium, and at this point the knife is carried boldly downward into the acetabulum; thence the incision is carried in a curved direction around the trochanter major, dividing the skin, muscle, and capsule, crossing the trochanter a little back of its middle, the curve of the incision terminating forward at a point corresponding to the base and anterior margin of the trochanter major. By this method it is rendered certain that the incision will be of sufficient size to expose freely the head of the femur.

The fibres of the gluteus muscle are separated longitudinally, and the incision presenting a curve with its convexity backward leaves a dependent wound for the free escape of pus. When the thigh is carried across the body the diseased bone protrudes through the incision, and is readily removed. By means of a heavy scoop knife all carious bone may be gouged out. Dr. Sayre has operated in forty-five cases; thirteen of them died, but only eight of them were directly the result of the operation.

Dr. Taylor said he never performed the operation, though he should if a case was found which required it. In about two hundred cases, in dispensary and private practice last year, there was not one fitted for it. His observations led him to conclude that not more than one half of one per cent required operation. He was of the opinion that the disease could be cured at a later stage than was generally supposed, by proper mechanical treatment, and if attended to properly at the outset the case will never demand an operation. These statistics are valuable for the better understanding of the disease. His opinion coincided with that of Dr. Sayre in respect to the disease being independent of scrofula. It may occur in scrofulous cases, and if it does the prognosis will not be so favorable, but scrofula itself is not the cause.

On motion, the thanks of the association were tendered to Dr. Sayre for his kindness in presenting such an interesting selection of cases.

Dr. Post said that the association were under obligations to Dr. Sayre for showing such an array of cases. He had seen much benefit from the use of the actual cautery in the earlier stages of the disease. He recollected one case of exsection of the joint which had an unfortunate termination. After the operation it was found that the whole limb mortified, and it was found that, after the operation, the upper extremity of the femur had worked around the femoral vessels and occluded them.

## EDITORIAL DEPARTMENT.

### PERISCOPE.

#### Bromide of Potassium in Albuminuric Convulsions.

The London *Medical Times and Gazette* says that M. Gimbert brought before the Société de Thérapeutique the particulars of a case of albuminuric convulsions, as exemplifying the utility which may attend the administration of large doses of the bromide of potassium in this disease. He observed that medicinal substances not infrequently lose their reputation in consequence of the exaggerated manner in which they are employed; and this has been somewhat

the case with the bromide. Still, there are circumstances in which doses which usually would be regarded as excessive prove of great service. The case in question occurred in the person of a man thirty-five years of age, who until 1870 had always enjoyed good health. He then became the subject of undefined pains in the back and chest, which were regarded as rheumatic. In January, 1871, he was found to be suffering from chronic pleurisy, and three litres of albuminous fluid were removed by the aspirator. After apparent recovery, he was attacked at the end of November by acute albuminuria, which two days afterwards was attended with convulsions, which after fourteen hours' duration

yielded to mild venesection, he remaining, however, for a week insensible. Early in 1872 he came under the author's care at Cannes, and again suffered from pleuritic effusion and the passage of large quantities of albuminous urine. We need not pursue the details of the case, it sufficing to say that on March 6 the patient had another fearful attack of convulsions, which for some hours threatened his life. Owing to this anæmic condition, it was not thought prudent to employ bleeding or chloroform, and the bromide was therefore administered in ten-gramme doses, per anum, as trismus prevented this being given by the mouth. This proved successful in relieving the convulsions, although the patient died seventeen days afterwards, with symptoms of uræmia. In this case twenty-four grammes of the salt had to be administered before the convulsions were arrested; but this is a quantity far less than the doses which have been employed by MM. Huette, Puche, and others.

In the discussion which followed M. Bucquoy observed that he had long employed the bromide in the treatment of albuminuric convulsions, and usually had very good reason to be satisfied with it. He sees a great number of cases at the Cochin Hospital, which he attributes to the fact of there being numerous tanneries in its vicinity, the workmen employed in these being subjected to high temperatures and subsequent chills. He first resorted to this treatment in a case of very bad albuminuric eclampsia, in which the administration of eight grammes was followed by speedy recovery. Since then he has tried it in a considerable number of cases, and mostly with success. He thinks the bromide is preferable to venesection, which enfeebles the patient, and renders convalescence tedious, while some patients are in too exhausted a state to admit of its employment. Saturnine eclampsia, also, yields just as readily to the bromide. M. Bucquoy gives two grammes at a time, never exceeding ten grammes in the day.

#### Cold Applications to the Neck.

Dr. B. F. Richardson, in the *London Medical Times and Gazette*, recommends a neck bag of rubber, with a constant stream of cold water through it as an efficient means of applying cold locally to the neck. He says:—

I have used this method of applying cold to the cervical region now several times, in pyrexia, with increasing confidence in its usefulness. In a case of apoplectic seizure, with convulsions, in a lady of middle age to whom I was summoned, I found a temperature of 102° Fahr., with deep unconsciousness, rapid pulsation of the carotids, and intense fullness and tension of the jugular veins. In this extreme instance I had the cervical region enveloped in a bladder of crushed ice, with the result of a fall of temperature to the natural standard in six hours, a quiescent condition of the circulation, and a subsidence of all the acute symptoms, so marked in character, it were, I think, impossible to

doubt that cause and effect were in their true place. This patient made a good recovery, and, although I do not attribute the recovery solely to the special remedy now being considered, I am convinced the remedy was of good service.

I had an opportunity of trying the effect of this mode of applying cold on myself. I took a feverish catarrh, attended with a rise of animal temperature to 100° Fahr. I had the bag neatly adjusted, and let pass freely through it water, taken simply from the cistern, the temperature of the day being at freezing-point. As the water current began to pass over the front part of the neck, with a gentle pressure which I regulated myself by the stopcock, I felt the effect of the cold very deeply, and at first not pleasantly. In three or four minutes, however, though the skin over the throat was ten degrees lower than on the other parts of the body, the sensation of cold was lost, and all unpleasantness was gone. Within a quarter of an hour I was conscious of a general reduction of fever, and of lessened vascular activity. The cold also had a soothing influence, producing desire for sleep. On this followed perspiration, and within two hours a reduction of the temperature to the natural standard.

These effects were satisfactory, because no other mode of treatment was employed to complicate the experience.

I shall look out with interest for the results of the observations of other practitioners on this method of reducing pyrexia. It stands on a good physiological basis; I believe its practical worth is clear; and I would that its usefulness were tested by the independent observation of other workers in our common field of labor.

I would urge on those who may study the effect of cold, more or less extreme, applied to the cervical region to observe the influence it exerts, in different classes of cases, upon the heart. If I am correct that it reduces the action of the heart, and if I am also correct in the view that it promotes a tendency to sleep, this remedy, so simple, will prove useful in many other forms of disease than acute pyrexia. In acute mania, in cases of insomnia, in cases of palpitation and cardiac irritability, it deserves the test of experience.

#### Syphilitic Paralysis.

At the Clinical Society of London, lately, Dr. Buzzard showed a patient, aged forty-six, who had recovered from an attack of general paralysis supposed to be of syphilitic origin. The man had been brought to the National Hospital, for paralysis, on January 8th, 1873, with paralysis of both facial nerves, of all four extremities, and incomplete paralysis of respiration, deglutition, and of the right sixth nerve, together with general cutaneous anæsthesia. His condition was so grave that he was at once admitted. He could not lie down, and could only take fluid nourishment by spoonfuls. His attack had commenced one month previously, with numbness in the finger-ends, and weakness of the legs



and arms, which progressed so rapidly that in three days he could not leave his chair. One week after the onset his speech became thick, and he felt a sense of constriction around the waist. After another week his powers of deglutition and breathing were involved. He continued to become more and more feeble, so that when admitted he could not move his legs, and had the slightest power only of using the muscles of his thighs and arms. He was permanently lame in the right leg, from an attack of infantile paralysis in childhood. His health previously to the attack had been uniformly good. There had been no injury, nor diphtheria, nor exposure to cold; and the attack was unaccompanied by fever, pains, or muscular contractions. His pulse on admission was 76°, and his temperature 99°. He had suffered from a chancre and bubo fourteen years previously, which were not followed by sore-throat or skin-eruption. On admission, he was placed on a water-bed; beef-tea, eggs, and wine were ordered; and ten-grain doses of iodide of potassium given three times a day. Within twenty-four hours he had improved; and in a week he could lie down, could close the right eyelid to some extent, and could swallow solid food. The muscles of the legs, in which contractility to faradism had been abolished, now responded slightly to the induced current. In four days more the right eye could be completely closed, his breathing was no longer difficult, and his limbs were regaining power. At the end of January he could close both eyes; and in a few weeks more all the facial muscles had recovered. Towards the end of March he could stand with assistance; and on May 6th he could walk with some help. On May 21st, four months and a half after admission, he was discharged, and a week or two afterwards resumed his employment, which he has since regularly carried on. At the present time he shows no traces of his attack. His treatment consisted of iodide of potassium in gradually increasing doses, amounting at last to sixty grains three times daily; and this was followed by subcutaneous injections of the chloro albuminate of mercury for two months (for the formula, see *Lyon Med.*, June 1872). Dr. Buzzard was of opinion that the attack was due to syphilitic thickening of the dura mater about the basilar process and upper part of the spinal column, causing pressure upon the pons varolii and spinal cord.

#### On Pyemia.

A very animated discussion on this disease has lately occupied the attention of the Clinical Society, of London. Reviewing it, the *Lancet* says:—

It must be confessed, therefore, that it is by no means an easy task to reconcile the contradictory statements of the two classes of disputants. The question whether pyemia is or is not a hospital disease, and whether it does or does not occur in private practice, are not so

simple as they at first appear. That it may occur and has occurred in private practice is indisputable, but it is contested that in such cases the disease either did not originate therein, or was at least dependent on the operation of causes identical with those which so commonly prevail in hospitals. It is a mere waste of words to attempt to argue away the large influence that pyemia exerts on the mortality of hospitals; or, on the other hand, to deny the frequent and intimate relationship which exists between hospital conditions and the occurrence of pyemia. The facts stare us in the face, modify them or contort them as we may. It is doubtless true, as Sir James Paget has said, that in a well-managed hospital pyemia will not be more frequent than in private houses; but this is really the giving up the whole question in dispute. Those who maintain that pyemia is a hospital disease, and that it is only found where hospital conditions are known to operate, do so, we presume, only on the evidence afforded by experience of the majority of large surgical hospitals as they really exist. It is evident that if all hospitals were actually as perfect as theoretically they may be rendered, and if every conceivable fault were removed, and the management and administration made incapable of improvement, then the influences which now prevail would no longer exist, or would at least be reduced to a minimum. But the contingencies of life are so capricious, and our physical and moral resources so limited, that it is doubtful whether we shall ever attain to that degree of perfection which will convert our hospitals from lazar-houses into the purest sanatoria and convalescent homes. Mr. Cadge, for instance, in his able and practical remarks at the Clinical Society, stated that at the Norwich Hospital pyemia had been on the increase for many years past, notwithstanding all that had been done to improve the system of drainage and ventilation. The explanation of this increase he finds in the overcrowding which has necessarily occurred during the last few years, from the increase of the population (the size of the hospital remaining the same), and from the larger number of serious wounds and injuries.

The *Medical Times and Gazette* adds the following remarks:—

Thus, it seems to us, that (1) the term "pyemia" stands for a class of cases included under the more general terms of "ichorrhæmia" or "septicæmia;" and (2) that it signifies a particular set of results excited by the action of a septic poison upon the system, but expressing no theory as to the nature or source of that poison.

The one fact beyond all others which has been made clear by this discussion is, that pyemia occurs in private practice. It ought not to have required, and perhaps it did not require, a prolonged discussion to prove this fact. Unquestionably some of the worst cases of blood-poisoning, ichorrhæmia or septicæmia, and pyemia, are admitted into the London hospitals from the houses of the poor, the whole

systems of the patients being thoroughly affected before going to the hospital. So, too, are some of the worst cases of erysipelas and phlegmonous erysipelas. In all probability these last-named diseases are milder and different expressions of the same kind of blood-poisoning as pyemia and septicaemia. Certainly diffused inflammatory changes in the cellular tissue are a very fertile source of systemic infection running on to pyemic results. If, then, a case of phlegmonous erysipelas passes on, after admission to a hospital, into one of pyemia (as does sometimes happen), that case of pyemia ought not to be considered as having had a hospital origin. The seeds of the disease were planted previously to admission, and were imported with the patient into the hospital ward. What, then, becomes of the value of the term "hospitalism?" As standing for a disease or a set of diseases it is superfluous, pretending and yet unmeaning.

#### The Management of Staphyloma.

On this topic, Mr. Jabez Hogg advises as follows, in the *Medical Press and Circular*:—

My method of treating staphyloma of the eyeball when the patient has a faint perception of light is, by section of the ciliary structures, or by seton to stop the augmentation of the staphyloma, and arrest further destruction of the tissues; should this prove successful, I then further attempt to make an artificial pupil, that is, whenever a small sound portion of iris can be seen. The insertion of a seton dates, I believe, from the days of Celsus, so that this is by no means a new operation. A single thread of silk passed through the anterior chamber establishes a drain, which, in a day or two, sensibly diminishes the protruding eye, and if the inflammatory action thus set up is carefully regulated to the necessities of the case, an amount of success will be obtained which will relieve the patient of much suffering, as well as the cost and trouble of an artificial eye; a matter of some importance to a poor person. The after-treatment consists in topical applications, as calomel, etc., to the eye, and the internal administration of iodide of potassium and other absorbent remedies. A staphyloma is, however, often a very ticklish affection to meddle with, and even a carefully inserted seton may set up a destructive ophthalmitis and necessitate removal of the eyeball.

A medium operation, abscision of the front of the eye, is among the oldest known in surgery. Celsus described and gave minute directions for its performance. When the eye has been in a quiescent state for some time, and appears otherwise free from recurrent inflammation, for cosmetic effects and for the removal of an inconvenient and unsightly protrusion, abscision is a safe and useful operation. In this operation the nervous tissues of the eye must be as far as possible avoided, and the sclerotic should be invariably closed by sutures. My mode of operating consists in first transfixing the eyeball with two needles armed with silk, then abscising

the cornea at the junction of the sclerotic and above the needles, bringing the edges of the wound together by tying, and finally applying with tolerable firmness a pad of cotton-wool and a bandage.

In every case when the staphyloma is associated with sympathetic irritation of the other eye, the patient complains of weak sight and a contracted field of vision, objects appearing to be diminished in size, or when from a slight cold there is a constantly recurring inflammation, with neuralgic pains, I at once decide upon enucleation. In some cases the pain appears to arise from a chronic inflammatory state of the choroid coat, for after removal this tissue and the lens have been found converted into a bony mass. Very frequently the iris is found adherent to the pseudo-cornea, and so much of it has been removed by absorption that, but for its shaggy uveal coat, it could not have been detected.

As to the method of performing enucleation of the globe, I adopt, with a slight modification, O'Farrell's operation, removal within the sheath. By a free division of the internal rectus and a blunt-pointed pair of scissors passed in close to the globe, I generally manage with one cut to separate the optic nerve; with but little trouble the eyeball slips out and the operation is finished. The bleeding which usually follows division of the several vessels is quickly arrested by the application of a stream of cold water. I am rarely troubled by any return of the hemorrhage when reaction sets in or sickness follows the administration of the anæsthetic.

#### The Action of Fats.

Dr. Day has reported a series of experiments in the *Australian Medical Gazette*, quoted in the *London Medical Record*. He says:—

"My present belief is, that fats, either in or out of the body, are incessantly absorbing oxygen and converting it into peroxyl of hydrogen; that in the body they produce the first change in the inspired oxygen, and convert it into peroxyl of hydrogen, ready for conversion, through the agency of the blood-corpuscles, into some still more active form of oxygen, probably ozone.

"In conclusion, I will briefly mention those points in the chemical properties of peroxyl of hydrogen which are possessed of the greatest physiological interest.

"1. It is a powerful oxydizing substance, and is chiefly characterized by the ease with which it parts with half its oxygen. Its oxydizing powers are much greater than those of common oxygen, but less than those of ozone, into which it is supposed to be converted in the presence of blood.

"2. It is chemically indifferent to albumen, and may be kept for a long time in contact with it, without undergoing change; in this respect it differs widely from ozone, which acts energetically on albuminoid substances, particularly when they are beginning to decay.

"3. It is destroyed by heat.

"Now, assuming that peroxyd of hydrogen is a normal constituent of fat, this last-named property may help to explain why persons suffering from rheumatic fever and other diseases in which the temperature of the body rises to 107° Fahr. invariably die; for we are told by writers on chemistry, that peroxyd of hydrogen begins to decompose at 100° Fahr., and that it decomposes with great rapidity at higher temperatures."

#### Treatment of Otorrhœa.

M. Mérière, in the *Journal de Médecine*, translated in *The Practitioner*, says that:—In all cases of otorrhœa great attention must be paid to the constitution, so that scrofula, syphilis, or other constitutional disease should be treated by appropriate general measures. In this lies an essential element of success in all instances. Systematic injections play an important part; they cannot do harm, and they are almost certainly productive of immense advantages. Cleanliness is a capital point in the treatment of otorrhœa, and nothing is better for this purpose than pure warm water injected from an ordinary syringe with moderate force, the nozzle being placed fairly within the meatus. The caoutchouc pears may be used, but the stream they give is less continuous and strong than that from a syringe. In the early stage, and when the otorrhœa is accompanied by sharp pain, the treatment is but little different. A good injection is composed of warm decoction of marsh mallow, in which one or two poppy heads have been boiled; this may also be poured into the affected ear, the patient resting his head on the sound side. A leech or two may also be applied behind the ear, the second being allowed to attach itself to the same point seized by the first. The whole ear may be covered with a poultice of linseed meal on which a little laudanum has been sprinkled. M. Giampietre recommends as a topical application the instillation into the meatus of two or three drops of a liquid containing one-sixth of a grain of aconitia in one ounce of distilled water. M. Mérière rejects the instillation of laudanum, ether, or chloroform. He objects also to the instillation of oil of almonds, and other similar fluids, so commonly employed; he thinks they often serve to aggravate the original evil. Where the pain is very intense he adopts the plan of subcutaneous injections of morphia, etc. Otorrhœa of old standing is more frequently complained of by patients than acute attacks; and in their treatment warm injections are always indicated. The fluid injected may be either pure water or a very weak solution of alum, one to five grains in two ounces. Solutions of sulphate of zinc and acetate of lead may also be used of the same strength. No other treatment will effect improvement, if injections, which remove pus and the secretions of the meatus, are neglected. A little piece of wool dipped in a weak solution of carbolic acid may be placed in the orifice of the meatus after each

injection; a little weak solution of nitrate of silver may be employed in the same way, and may also be injected once a day, the ear having been first thoroughly cleansed by the injection of warm water, and dried by the subsequent introduction of a little warm dry wool. Neither of these topical applications, and especially of carbolic glycerine, is painful or harsh, as they simply cause a tickling sensation in the ear, and the secreting surface is thus modified without harm. M. Mérière frequently uses the following lotion, the ear having been previously injected with water and dried:—

Water, 200 parts.

Glycerine, 100 parts.

Sulphate of zinc, 5 to 6 parts.

Another lotion, which may be used even when there is great vascularity at the bottom of the meatus, and even in cases of perforation of the tympanum, is:—

Acetate of lead, 5 to 15 parts.

Water 300 parts.

In both cases a few drops may be allowed to remain in the ear for eight or ten minutes. By the use of these means it is not to be expected that every case of otorrhœa will be cured, but at all events the disease will be prevented from getting indefinitely worse, and the patient placed under the most favorable conditions for special treatment.

#### On Anti-Malarial Plants.

In an article in the *Medical Press and Circular*, Dr. C. A. Gordon, Deputy Surgeon-General in the British Service, says:—

In past ages there appear to have been instances of a sort of instinctive resort to certain plants as disinfectants. Herodian relates that during a plague in Italy, in the second century, strangers crowding to Rome were directed by the physicians to retreat to Laurentum (now San Lorenzo), a place so called from the abundance of *Laurus nobilis*, or sweet bay tree, which then grew there, and by inhaling the odor of which they would in a certain measure be guarded from infection. And long before the time alluded to, the disciples of Empedocles had been accustomed to plant aromatic and balsamic herbs in the neighborhood of their dwellings, in the confident belief that by so doing they were providing means of defence against fevers, etc. To this day we have the name of "Feverfew" as the appellation of one of the strongest-scented composites, with traditions of its abounding febrifugal powers; and, it may be added, "if we are wise we shall imitate the citizens of Laurentum, and promote the growth of bay trees wherever the soil and climate will allow them to flourish." Besides all these, some resin-yielding and aromatic plants have the reputation of destroying malaria. There is reason to believe that several species of the natural order *Myrtaceæ* possess this property, besides the *Eucalyptus globulus*. Of late years this plant has

obtained a high reputation for its assigned power, and some writers have recommended its introduction with a similar object on the Gold Coast. Various examples of its success in Algeria are recorded. At Pandook, on the banks of the river Hamyze, fever was extremely prevalent. In 1867 several thousand plants of the eucalyptus were introduced, with the immediate result of rendering the locality healthy. A similar result was obtained at Ben Machydon and Gue de Constantine, in the island of Corsica, in Cuba, in the Australian Colonies, at the Cape of Good Hope, and other places. Probably other trees which yield aromatic gum resins would have a similar effect, and it is not known that malarious diseases prevail in places where trees of the natural order *Conifera* grow abundantly.

Various other plants have obtained a reputation as being capable of destroying "malaria," or at any rate rendering that influence innocuous. Thistles had rendered some parts of the Campagna near Rome healthy, and on the plants being cut down, those districts became again "malarious." Sunflowers appear to have been first planted for a similar purpose in America, and in that country they are said to have been so successfully. Baron von Alsten, whose property was situated on the banks of the Soheldt, and liable to be flooded by that river, planted several patches of the sunflower (*Helianthus*) near his house, and with the result that for ten years his family continued exempt from fever, while in other properties, where no similar precaution was taken, this disease continued to prevail. The plant has of late years been sown in the Mauritius for a similar purpose, and in further recommendation of its good qualities, the observation has been made that it yields forty per cent. of good oil; that the leaves from it are excellent fodder, and the stems, being rich in saltpetre, make good fuel. Marshes may also be rendered healthy by the presence of other plants. Among those that conduce to this happy result is the *Pistia stratiotes*. In India, the West Indies, and Africa, the power exerted by this plant in absorbing the deleterious gases of muddy marshes is well-known, and probably it is on this account that in the latter country the plant is held sacred.

## REVIEWS AND BOOK NOTICES.

### NOTES ON CURRENT MEDICAL LITERATURE.

—Of new journals we note the *Missouri Clinical Record*, a monthly journal of medicine and surgery, edited by Dr. W. A. HARDAWAY, assisted by Dr. A. B. SHAW and Dr. CHAS. A. TOWN, published at St. Louis, \$3.00 per year. The first number presents a very creditable appearance.

—The valuable study of the therapeutic qualities of the sulphate of cinchonidia, by Dr. WHARTON SINKLER, which appeared in the *REPORTER* last February, has been republished in pamphlet form.

### BOOK NOTICES.

**A Manual of Toxicology, Including the Consideration of the Nature, Properties, Effects and Means of Detection of Poisons, more especially in their Medico-Legal relations.** By JOHN J. REESE, etc. Philadelphia, J. B. Lippincott & Co., 1874. 1 vol., cloth, 8vo, pp. 507. Price

Professor REESE has been prominently connected, in his character as toxicologist, with several of the more remarkable *causes celebres* of the last few years; and as Professor of Medical Jurisprudence and Toxicology in the Medical Department of the University of Pennsylvania, his lectures are familiar to several generations of students. His work, therefore, will doubtless take a high rank among kindred treatises.

He commences with a sketch of the mode of action and the evidences of the presence of poisons, stating the comparative value of the various forms in which the latter may present itself. Some general advice is then given on the position in which medical experts stand to the legal profession, embracing several very judicious practical hints, the observance of which will often save the physician money, time and impertinence.

Poisons he classifies as either irritants or neurotics. In the vast number of toxic substances, he passes over with slight, indeed we must say insufficient mention, quite a number of less frequent use; but is quite full on opium, strychnine, phosphorus, arsenic, hydrocyanic acid, etc. Under the last mentioned heading, however, it is singular no reference is made to the artificial oil of bitter almonds, which has been used on several occasions for toxic purposes, and gives rise to a very remarkable and peculiar train of symptoms.

The treatment of cases of poisoning is reviewed briefly, and the tests, chemical and microscopical, quite fully set forth. The work is on excellent paper and in good readable type.



## MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, MAY 2, 1874.

D. G. BRINTON, M.D., Editor.

The REPORTER aims to represent the Profession of the whole country, and not merely sectional or local interests.

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OFFICE OF

THE MEDICAL AND SURGICAL REPORTER,

115 South Seventh Street,

PHILADELPHIA, PA.

## THE MARINE HOSPITAL SERVICE OF THE UNITED STATES.

The purpose, scope, and value of the Marine Hospital Service of our country are less understood than they deserve to be, and up to a very recent date the mass of legislators took little interest in, and had less knowledge about its welfare. A circular letter from the present efficient supervising surgeon, Dr. JOHN M. WOODWORTH, is before us, which sets forth the character of the service, and the important changes for the better in it, in a way which will interest all intelligent physicians.

He observes that, in a general way, the Marine Hospital Service of the United States may be said to be analogous in its functions to the Medical Department of the Army and the Navy, in that it is the medium through which medical and surgical treatment is furnished to the sick and disabled of a large body of men. Its scope, however, is wider than that of those Departments, as well in the variety of duties imposed by law upon the chief of the Service, as in the much larger number of men cared for through it. These men, constituting the American Merchant Marine, aggregate in round numbers about 113,000 souls, comprising the officers and crews of 26,853 vessels, of 3,721,425 tons burthen. Upon the individual members of this body is assessed, by statute, dating as far back as 1798 (1 Stat., 605), a monthly tax, the proceeds of which constitute the Marine Hospital Fund, and out of which is defrayed, in large part, the cost of the Service, the deficiency being met by an annual appropriation made by Congress for that purpose.

By act of June 29, 1870, reorganising the Marine Hospital Service, it was directed that there should be appointed "a surgeon to act as supervising surgeon of the Marine-Hospital Service, whose duty it shall be, under the direction of the Secretary [of the Treasury], to supervise all matters connected with the Marine Hospital Service, and with the disbursement of the fund." The present incumbent,

being the original appointee under this act, found it devolved upon him to determine, *ab initio*, the nature and scope of the duties of the office thus established; and, with the approval of Senator Boutwell, then Secretary of the Treasury, such an interpretation was given to the language of the law as it was believed would best fulfill the design and intent of Congress in its enactment. Hence it was argued that the Supervising Surgeon, "under the direction of the Secretary," should not only secure suitable medical attendance for the sick and disabled, inspect hospitals, their construction, condition, administration, etc., and, in kindred ways, exercise a strictly professional knowledge and authority, but that he should aim to secure a diligent collection of hospital dues, and the equitable enforcement of the act with regard thereto; that he should become familiar with prices-current of medical, subsistence, and other stores, and with the relative conditions and cost of maintenance, etc., throughout the country, in order to audit accounts, revise requisitions, and determine the necessary amount and character of relief to be furnished at the various ports; in short, that he should, literally, "supervise all matters connected with the Marine Hospital Service, and with a disbursement of the fund."

Of course these varied duties devolved a large amount of work on Dr. WOODWORTH, which he discharged in so capable a manner that a comparison of the average figures for the two years between June, 1871 and June, 1873, with those for the year ended June 30, 1871, under the operation of the same act, but before the appointment of a Supervising Surgeon, shows the result of these changes has been:—

To increase the number of customs districts in which hospital relief is furnished nearly twenty-seven per cent.;

To reduce the average daily *per capita* cost of such relief about twenty per cent.;

To increase the collection of hospital dues sixteen per cent.;

To reduce the total cost of the Service nine and four-tenths per cent.;

To reduce the net cost to the Government over fifty-one per cent. ; and, as a consequence,

To diminish the amount of the deficiency appropriation for the current year to only forty per cent. of that of 1871.

This is certainly a gratifying showing, but it is the fiscal one only; for in the year ending June 30, 1873, not less than thirteen thousand five hundred and twenty-nine sick and disabled seamen were furnished medical and surgical relief, of whom twelve thousand six hundred and ninety-seven were maintained in hospital an average of thirty-three days each, at a total expense, for everything, of only *one dollar a day each*! Nothing could show more conclusively than these figures the excellent management of this benevolent undertaking and the urgent need of it. The poor, homeless, and sick sailor finds kind attendants, clean quarters, and skilled physicians thus prepared for him in all our principal ports (eighty-one in number). Ten hospitals are exclusively devoted to his use.

Much yet remains to be done to better poor Jack's condition, whether sick or well; but that the Marine Hospital Bureau is in excellent hands at present all will feel convinced who examine Dr. Woodworth's recent reports.

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## NOTES AND COMMENTS.

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### Intemperance as Disease.

In a recent essay before the Baltimore Medical Association, Dr. Parrish argued that the "temperance reform" needs to be reconsidered for the purpose of gaining a tenable standpoint on which scientific men may agree. We must deal with it as a disease, and legislation should be such as may restrict the consumer. The remote or constitutional causes of insanity cannot be reached or controlled by law, except so far as the individual is concerned, under the operation of his own intelligence and a co-operative public sentiment, and the same may be said of inebriety. The real source of prevention is an appreciation by the people of what intemperance really is, a condition of disease that should have

medical treatment. It must not be thought that drunkenness is only a vice or a crime. Insanity, idiocy, and even hysteria, were formerly regarded as evidences of demonism. The power of the will to control animal appetite has been over-estimated. In closing the speaker alluded to the demand for alcoholic stimulant in all countries. Alcohol is the basis of a commerce co-extensive with the world, and the demand and supply can only be properly regulated by enlightenment and cultivation. People cannot be legislated into special virtues.

#### The Prize for a Certain Sign of Death.

The Marquis d'Ourches offered, through the Paris Academie de Medecine, some two years ago, two prizes, one of twenty thousand francs, the other of five thousand francs, for some simple, certain sign of death. The Secretary, Dr. Roger, has quite recently reported on the competition. He prefaces his account of these awards by a lively historical view, in which the various fables concerning premature interments are disposed of very summarily. The old story of Vesalius also receives no credit from him. "Neither is it true," he says, "that men of art have committed cruel mistakes with regard to apparent death. Vesalius, the creator of anatomy, first physician to Charles v and Philip II, directed his scalpel into the body of a gentleman while yet alive, and for this he was condemned to death, and by commutation to exile in the Holy Land. This is the way history is written! For this fact about Vesalius contemporary chronicles may be searched in vain. The autopsy of the gentleman, the capital condemnation, all is pure invention; and if Vesalius repaired to Palestine it was only for his health."

One hundred and two essays were sent in, but none was deemed worthy the first prize. The second was divided between six competitors. Five hundred francs were given M. de Cordue for his observations on the effects of the flame of a candle on the pulp of the finger. As long as life persists this burn produces ampullæ filled with serosity, while, when life is extinct, they contain nothing but vapor. The condition of the eye has long been constituted a sign, and of late the disappearance some hours after death of the dilating power of belladonna and of the contracting power of Calabar bean has been noted. M. Larcher has been rewarded with a recompense of five hundred francs for the discovery in the eye of what he regards a new sign

of death. As the result of the examination of nearly nine hundred subjects, he has observed that a certain sign of death is the occurrence of a shaded and grayish spot, first at the outer portion of the sclerotica, and gradually invading its whole surface. It is a sign of local decomposition which precedes general decomposition by several hours. M. Poncet also receives an honorable mention for a sign as positive and more rapid in appearance, viz., a general decoloration of the fundus of the eye, this changing from the intense red seen by the ophthalmoscope during life, to a yellowish white. M. Molland, one of the official municipal verifiers of death, has obtained two thousand francs of the prize, in consequence of his observations concerning *cadaveric lividity* of dependent parts of the body, made in sixteen thousand subjects. From these he concludes that such lividity is a constant sign of death, which is of the more practical value as it generally appears very soon after death. For investigations as to the *temperature of the body after death* as a sign of death, M. Bouchut and M. Linas have each received one thousand francs.

#### Masturbation and Insanity.

Dr. J. T. Dickson, in his lectures at Guy's Hospital, takes very different ground from Dr. Maudsley on this subject. His words are, "Masturbation may be the excitant of an attack when there is a predisposition; but masturbation *per se* is not a cause of insanity. It is practiced by the young of both sexes to an incredible extent, and particularly amongst the youth at boarding-schools, but insanity seldom comes of it. It rarely produces mania, and only does so in cases where predisposition exists; and after a time both boys and girls who have practiced it at school give it up."

#### The Treatment of Tetanus.

We earnestly recommend our readers, should they be called upon to treat a case of tetanus, to give the alternating treatment with chloral and potassic bromide a thorough trial, and report to us the results. Two sure cases of cure are reported in the European journals. One is of a woman of forty, who had wounded her finger with a splinter, which she removed herself. Tetanus occurred one month after the accident, and she had more than ten general attacks in twenty-four hours. Sixteen days after the first tetanic symptoms the patient removed

from the wound a bit of splinter, the size of a pea, which had been left in it unobserved. The usual narcotics having failed, chloral was tried and succeeded. Altogether three ounces and a half were taken in twenty days.

Again, a man of forty had his left temple wounded by a pointed piece of reed. Tetanus supervened, and here, again, a portion of the foreign body was removed twelve days after the accident. He had at first fifteen-grain doses of chloral, and improved much upon them. But the tetanus recurred with renewed severity, and the chloral was pushed as far as one hundred and twenty grains per diem. The patient completely recovered, and had taken, in about thirty days, six ounces of chloral.

#### The Treatment of Mania.

The treatment recommended by Dr. J. T. Dickson, in his lectures at Guy's Hospital, is peculiar:—

"I cannot," he says, "in too strong terms deprecate the use of sedatives in mania." Opium, digitalis, henbane, cannabis indica, are all condemned. If from any cause a sedative is necessary, chloral will be found to be of value in some instances, although in others it is absolutely useless. "A drug of real value in the treatment of mania is to be found in alcohol. It will calm the most restless and excited mania, and will almost always induce sleep, even in very obstinate cases." It matters little in what form it is administered; wine or brandy may be given, "and may be administered without stint, in any manner in which the patient can be induced most readily to take it."

This strikes us as rash and dangerous advice.

#### Asthma and Skin Disease.

A singular observation was lately brought before the Royal Medical and Chirurgical Society, by Mr. George Gaskom.

After mentioning that the hereditary character of psoriasis has been much exaggerated, according to the usual acceptations of the term hereditary, he affirms that its connection with asthma forms the most conspicuous feature of this complaint, being discoverable in the history of at least one-third of the cases. In a continuous inquiry, asthma has been sought for in 2000 cases of skin disease, exception being made for those of a parasitic and syphilitic class; and the result has been its appearance in 141 cases, of which 65 are cases of psoriasis. Further

observations affirm the dependence of skin disease on the phthisical and arthritic diatheses in the great majority of cases, their influence being observable, with very few exceptions, in those families which present instances of hereditary transmission.

#### Sanitary Instruction to Women.

The Birmingham correspondent of the *British Medical Journal* writes:—

"On the subject of public health, it is a pleasing duty to record the earnest self-denying efforts of some ladies to teach the mothers of the lower classes the elements of nature's laws as to health. Miss Kenrick and Mrs. Bracey have been lecturing through the session, in public rooms, to upwards of four hundred women, who have showed the greatest appreciation, questioning, and bringing written answers to questions, about food and air, circulation and digestion."

This is an admirable step, and we hope it will soon be followed in this country. There is immense room for sanitary improvement in departments where women alone can effect it, to wit, in housekeeping.

#### Pruritus Vaginæ.

The *London Medical Record* mentions that Dr. H. Clemens treats this obstinate affection by means of grooved metal bougies smeared with an ointment containing borax and lard in the proportions of one to three. Should he not succeed by this means, he uses the induced current of electricity, by passing a leaden bougie, smeared with the above preparation, into the bladder, to which he attaches one pole, while the other pole is applied to the nape of the neck; a gentle current of inducted electricity is transmitted for about ten minutes at a time. In pruritus vaginæ he passes one pole, with a sponge at the end, up the vagina, smeared with borax. He states that by this means he has cured the most inveterate cases in old women.

### CORRESPONDENCE.

#### A Case in Surgery.

ED. MED. AND SURG. REPORTER:—

Sarah Wells, a colored girl, aged nine years, while riding upon the foot-board of engine No. 1, Kansas Pacific Railroad, October 11th, 1873, accidentally fell under the wheels, which passed over both arms and one leg. I was immediately summoned, and found her in a frightful condition; covered with blood and dirt, and with



three limbs nearly crushed from the body. I called Dr. William H. Thacker to assist me. Chloroform was administered at once, and the right arm amputated about two inches below the elbow; the left one at the point of union of the upper and middle third of the humerus; and the right leg about four inches below the knee. The amputations were performed, and the limbs dressed, within a less period than one hour from the reception of the injury. The shock following was not as great as expected from the extent or nature of the wounds. There was union by adhesion in the upper extremities, but in the leg considerable sloughing took place. Cicatrization, however, was accomplished at the end of the seventh week. The dismemberment of so large a portion of the body, the speediness of the operations, and the favorable results attained in the case, would seem to me to give it some importance to the profession as additional evidence in favor of immediate amputations.

F. J. BANCROFT, M. D.

Denver, Colorado, April 4th, 1874.

#### Remarks on the Treatment of Hemorrhoids ED. MED. AND SURG. REPORTER.

There are few if any maladies which afflict so large a number of the human race as those peculiarly annoying and obstinate tumors popularly known as "piles." Persons of sedentary habits are most liable to them; though no avocation. no condition of life furnishes exemption. There often exists a hereditary tendency in this as in other abnormal conditions of the system. Some species of monkeys, during close confinement in cages, are subject to a similar affection, of a severe type, the mucous membrane of the rectum extruding and puffing up, like a ball of inflated rubber, in some instances attaining a prodigious size, not unfrequently as large as a small cocoonut.

The most frequent predisposing cause of hemorrhoids, probably, is an engorged condition of the portal circulation, and in the incipient stage of an attack a dose of blue mass, or better, perhaps, an emetic of ipecac, will often afford prompt relief.

Later the proper treatment is to remove other predisposing causes, and return immediately, promptly, the extruded part. The best way to accomplish all that may be done by local treatment is for the sufferer to be always provided with a little piece of fine sponge, which should be kept, for convenience, in a wide-mouthed bottle. The ordinary four ounce "salt mouth," with glass stopper, answers very well. This should be partly filled with cold water, and invariably taken to the water-closet, and constantly used after every motion of the bowels, to bathe the mouth of the bowel, and immediately after bathing, or sponging, every particle of membrane that does not voluntarily return beyond the sphincter should be gently but firmly pressed well up with the ball of the finger. Sometimes, when there is so lax a condition of the sphincter as to create a disposition to prolapsus

ani, sponging with a solution of sugar of lead, three or four grains to the ounce, will be useful. Tannin, used as an ointment, is often beneficial; when there is any abrasion and much pain a little iodoform applied to the part will be most grateful. In a large proportion of cases, during an attack perfect quietude in the recumbent position is a *sine qua non*. But, both as a preventive and cure, judicious pressure is, above all other things, most important; a threatened attack may often be warded off, an attack always shortened, and a seeming radical cure effected, by steady pressure; when there is much sensitiveness, local anaesthesia may be important. For this purpose the iodoform, morphia, or stramonium will usually be found sufficient. The cautious use of ice may do well, and possibly chloral hydrat. may answer. Persons who have attended faithfully to the rational device above indicated, who had suffered almost constantly for years, and so harassed as to be almost incapable of attending to business of any kind, have had immunity for many years, and now wonder why they never, before it was suggested and its importance explained to them, thought of pushing the hemorrhoids up! When, which is of comparative infrequent occurrence, the hemorrhoids are internal, and never protrude, astringent lotions, with weak tinct. of iodine, and an alterative medicine, will be found advisable. Sulphur, with bitrart. pot. will answer a good purpose in keeping the bowels soluble. So of mustard seed, and confection of senna; ext. nux vomica is often a valuable adjunct in the treatment of costive subjects.

FLIXICAN.

#### Compound Calomel Powder.

ED. MED. AND SURG. REPORTER:—

On page seventy-six, part thirteen, of the HALF-YEARLY COMPENDIUM OF MEDICAL SCIENCE, Dr. Battey, of Georgia, gives the following recipe:—

R. Calomel,	gr. vj.
Refined sugar,	gr. xij.

Mix in a suitable mortar and grind (*long and diligently*) until they are thoroughly combined in an impalpable powder. Divide into twelve powders, and direct one for the dose, to be placed on the tongue of the patient.

From my first sight of this recipe I was pleased with its simplicity, and at once commenced using it in all cases where evacuation of the bowels was required. One case was that of a man aged about fifty years, with torpor of liver. I prescribed the above powders, one every four hours, with the best of effects. I have also used it in irritative fever in children; also in morbid dentition; all with good results. The powder never failed to act, except where opium had been previously taken. One peculiarity with the recipe is, that the dose is the same for all ages and conditions. I have used it for sick headache, and also habitual constipation, with excellent results.

Patients who are adverse to pill taking swallow the powders gratefully. I am constantly asked for some of those little white powders to act on the bowels; in fact, I am pestered for them almost as much as Dr. K. P. Moor, of Knoxville, is for his "breeding medicine." (*Vide* COMPENDIUM, Part xiii, page 203). Other physicians of this community have been using the above recipe with like results.

A. S. HARSHBERGER, M. D.

Milroy, Pa.

#### Case of Thoracic Abscess.

ED. MED. AND SURG. REPORTER.

I should like to ask the readers of this journal if any of them have ever had a case of abscess in the pleural cavity under their treatment; if any of them have I would like to hear of their experience, through its columns. I have had an abscess in the right side of my chest for nearly ten years, that, for the quantity of pus discharged, and other circumstances attending it, which for want of space I shall have to omit, is remarkable. From the time of commencement (in the early part of the summer of 1864) until two years ago this spring, it discharged on an average fully half a pint of thick pus every day, through a small opening between the ribs, about an inch below the right nipple.

In the latter part of March, 1872, I commenced using an aqueous solution of carbolic acid as an injection. Under this treatment, by the 1st of May, 1872, suppuration had entirely ceased, which was followed by a contraction of the cavity to about one-third of its original size, and the discharge of a thin transparent fluid which looks like pure water until acted upon by the acid solution. This change was attended with no bad effects, but on the other hand, a great improvement in my general health and strength; with a constant daily use of this injection I can control the suppuration, but beyond this it has little effect; if from any cause I am unable to wash the cavity for a space of eight or ten days it will break out again. At present the sinus, when fully distended with fluid, will hold about one fluid ounce; it is long and narrow, extending upward and backward, and I think that it penetrates the body of the lung. I should here state that the greater part of the right lung is destroyed, or else, as I judge, atrophied; that part of my chest having collapsed.

Should any of the profession who may chance to read this have had any experience with a case similar to this one, and will give their opinion in regard to treatment, etc., they would confer a kind favor on

A MEDICAL STUDENT.

Wisconsin.

#### "Triplet Pregnancies."

ED. MED. AND SURG. REPORTER:—

Two cases, in the immediate vicinity of each other, within the short time of two months, is of such rare occurrence as to induce a report of them. In the *Obstetrical Journal of Great Bri-*

*tain and Ireland*, S. Albert Puech offers some conclusions on triplet pregnancies: "1st: The mean in France is 125 a year, or one case for every 8256 deliveries. As to the afterbirth, he concludes, single 27 times, double 15 times, and sometimes triple (eight times). As to sex, mixed sexes more frequent than of one sex."

CASE I.—Mrs. A., age 34, a delicate, feeble patient, who has been profoundly anæmic for more than two years; married 13 years, and has four children, all at separate confinements; menstruated last, October 10th, 1873. First felt quickening about 15th February; taken with labor March 26th, at 5 A. M., and in less than two hours gave birth to three children, two males and one female. The males were born first (alive), and died within ten minutes. The female was expelled with the bag of waters entire. They were all about the same size, perfectly formed, etc., for the period of gestation. They were born before my arrival. I cannot state the presentation. Placenta single, with three separate cords arising from it; not above the average size for single births. Mother did well.

CASE II.—Margaret (colored), age 40 years, the mother of seven children, a stout, healthy woman, used to hard out-door labor, for which she gets but a poor and scanty living. All her previous confinements were easy, with single births. Menstruated last, about 15th July, 1873; taken in labor on the 22d January, which lasted 12 hours. Gave birth, at 8 A. M. (23d Jan.), to three children, all males, alive. The first two, vertex presentation; third, and last, breech; all born within 20 minutes. Placenta single, with three cords, arising separately. One died in 36 hours, the other two in 48 hours. Mother made a good and speedy recovery.

I am indebted to J. B. Hanna, M. D., for the notes of the second case, who attended it.

THOS. M. WOODSON, M. D.

Gallatin, Tenn., April, 1874.

## NEWS AND MISCELLANY.

### Kentucky State Medical Society.

The Society met at Shelbyville, April 8th. Dr. Thompson, President, in the chair. The meeting was well attended, the interest lively, and a number of scientific papers read and referred for publication.

Dr. Lewis Rogers read the following resolutions:—

*Resolved*, That the State Medical Society of Kentucky does cordially unite with the American Medical Association in the memorial to Congress in support of a bill to increase the efficiency of the Medical Department of the United States Army, now before that honorable body.

*Resolved*, That this society considers it an act of justice that the members of so important a branch of the service, gentlemen of the highest professional attainments and excellence of char-

acter, and charged with such weighty and responsible duties, should hold the same relative rank and enjoy the same emoluments as members of the other staff corps of the army.

*Resolved*, That it be respectfully urged upon the members of Congress from the State of Kentucky to use their influence in support of the bill in question.

The resolutions were unanimously adopted, and the secretary ordered to inform the Kentucky delegation in Congress of their adoption.

#### The Medical and Chirurgical Faculty of Maryland.

At a meeting of this body, April 16th, the following officers were elected:—

President, Dr. Henry M. Wilson; First Vice President, Dr. F. T. Miles; Second Vice President, Dr. J. E. Stuart; Third Vice President, Dr. P. A. O'Donnell. For Recording Secretary, Dr. Wilson G. Regeater; Assistant Recording Secretary, Dr. G. Lane Taneyhill; Corresponding Secretary, Dr. Lindley Ellicott; Treasurer, Dr. Judson Gilman.

#### Annual Meeting of Medical Society of New Jersey.

The one hundred and eighth annual meeting of the Medical Society of New Jersey will be held in the Mansion House at Long Branch, on Tuesday, May 26th, 1874, at 7½ o'clock, P. M.

WM. PIERSON, JR., Secretary.

Orange, April 20th, 1874.

#### Medical Legislation in Kentucky.

The Kentucky Legislature has lately passed a law requiring all who attempt to prescribe for the sick to be regularly graduated in medicine by a duly chartered medical college, or they must obtain proper credentials from one of the State Boards of Medical Examiners, one of which is in each judicial district of the State. It may be known that every candidate for practice in North Carolina must pass a satisfactory examination before the Board of Medical Examiners of that State before he can obtain license to practice. Other States are making similar requirements.

#### The United States Medical Directory.

The attention of readers is asked to the advertisement of this work in our advertising pages. Those who remit for it before June 1st will receive it at the reduced rate of five dollars, postpaid (\$5). After that date its cost will be six dollars. Specimen pages sent gratis on application.

#### Novel Electrical Battery.

Native electricity may, after all, be better than the manufactured article. It is a favorite application in Abyssinia, fever patients are tied down on a table, and a species of torpedo or electric eel applied to various parts of the body as an infallible remedy.

#### Longevity of Medical Men.

The London *Medical Times and Gazette* lately argued that medical men in England stand high on the scale of longevity. The united ages of twenty-eight physicians who died last year amount to 2354 years, giving an average of more than 84 years to each. The youngest of the number was 80, the oldest 93; two others were 92 and 89 respectively; three were 87, and four were 86 each, Sir Henry Holland being one of the latter. There were also more than fifty whose average age was between 74 and 75 years.

#### Real Cannibals.

The German traveler, Dr. Schweinfurth reports real cannibals in Africa. He describes a meal he witnessed, of a stewed baby, only two days old, whose mother had deserted it. The baby was dying while the preparations for cooking it were already commenced. This is the real truth, and no traveler's joke, as the babies and fond mothers would quickly discover should they visit the tribe of Monbuttoo. It may be asked, "How did Dr. Schweinfurth escape?" but it must be remembered that these cannibals do not eat men of science, who are generally very lean.

#### Too Much of a Good Thing.

The London *Spectator* thinks too much attention may be paid to health. It remarks:—Ill health should be avoided, of course, by State action as well as personal care, inasmuch as it diminishes mental and physical force; but as we are all under sentence of capital punishment, is it worth while to make the enormous fuss everybody is now doing about everything which makes, or possibly may make, death come a little quicker? Is there no force in Frederick's apothegm, as he caned the flying soldier: "You rascal, do you want to live forever?"

#### Medical Mnemotechny.

The *Guy's Hospital Gazette* contains the following mnemonic distich on aneurism of the arch of the aorta:—

Patient cannot swallow food  
So well, he says, as once he could.  
Edema, pain, sometimes pulsation,  
Something wrong with Respiration.  
Five may be causes for dyspnea;  
Veins, vagus, bronchus, lung, trachea.  
If these are by the tumor pressed,  
The breathing will be much distressed.

—M. Chevalier mentions a practice of some manufacturers, of weighting their silks with a solution of lead acetate, by which means poisonous properties are imparted to the silks, as well as an increase in weight.

—The ceremony of breaking ground for the new hospital for the insane, at Warren, took place on the 16th inst.

—A death from hydrophobia occurred in this city, about four months after the bite.

## Personal.

—Dr. Harry Sims, son of Dr. J. Marion Sims, is to marry Miss Chickering, daughter of a member of the celebrated piano manufacturing firm.

—Dr. Viale, the Pope's physician, and one of his most intimate friends, has just died in Rome, at the advanced age of eighty-five.

—Last month a memorial window was unveiled, at Folkestone, in honor of Harvey, over the western porch of the parish church. It is also intended to erect a memorial aisle.

—Dr. H. G. McAllister, of Cincinnati, died last month, of an overdose of chloral and bromide of potassium. The dose is said to have been one-half ounce bromide of potassium and one drachm of chloral.

—Judge Williams, of Chicago, decided on the application of Dr. Paul Schœppe, alias "Count" Schulenberg, for release on habeas corpus, holding that the suspension of sentence was obtained by fraud upon the court.

The judge, in his remarks, said, "The prisoner, in my opinion, is a bad, dangerous man; thoroughly a villain from head to foot. Counsel have very eloquently urged that he has been seeking to lead a new life; but everywhere we track him by his crimes. I do not think he is a man in whose behalf the law should be stretched. He is entitled to the same rights as any other citizen, and no more. The fact of his superior intelligence renders him but the more dangerous."

—At the resignation of Prof. Hyrtl, the anatomist, in Vienna, the professors of the Faculty stood coldly aloof, showing by their attitude that anything but harmony and good will existed between the eminent anatomist and themselves. The latter, in the different valedictory speeches, avoided allusion, or alluded with great caution, to the causes of his retirement; but it was plain that the enmity of his colleagues had much to do with his resolution.

—The Legislature of Pennsylvania has passed an act appropriating two thousand dollars for the support and education of deaf mutes, the sum to be expended in the Hospital at Pittsburgh. Much of the credit of this act is due to the Pennsylvania State Medical Society.

—The third National Penitentiary and Reformatory Congress convened under the auspices of the National Prison Association, will meet at St. Louis, Missouri, on the 13th of May, and will continue in session six days. E. C. Wines, Springfield, Illinois, is the Secretary.

—A lady in Dover, New Hampshire, fell down on the sidewalk recently, and in doing so broke the steel in her corset. The sharp end of one piece was driven into her body, inflicting a dangerous wound, from which it is feared she may not recover.

—Augusta, Ga., has organized a cremation club.

—The *Dental Cosmos* says:—The "hits" at the dental profession by the editor of the *Pennsylvania Medical Times* remind us of the Irishman's account of a fight: "The first time he hit him he missed him, and the second time he hit him in the same place."

—Two hundred and fifty persons have been adjudged by the Illinois courts as lunatics, whose insanity had its origin in the great fire at Chicago.

—The virulence of the cholera at Munich this winter is attributed by the local physicians to the bad water used in the manufacture of beer.

—Belgium thinks of formally abolishing capital punishment. Practically it has been abolished for the last thirty years.

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**QUERIES AND REPLIES.**
**The Penn Medical College.**

*Dr. R. H. E., of Pa.*—It is true this institution had at first a reputable faculty, and it was acknowledged by other colleges as regular; but its charter was subsequently bought by an Eclectic concern, and the name fell into discredit.

**Articular Pains.**

*Dr. W. A. J.* asks for suggestions to alleviate articular pains in the knees and shoulders, with considerable cardiac uneasiness, from which he has suffered for years. Alkalies, anodynes, and stimulants have alike failed.

We suggest the acid treatment as the latest for rheumatic sufferings.

*Dr. T. M. W., of Tenn.*—We allow 20 per cent. discount on any medical journal published in the United States, when taken with the *REPORTS* and paid in advance, except two or three which decline to allow any discount to us. Of the two journals you mention, the one published in this city falls in the latter category.

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**MARRIAGES.**

**SMITH—CALVIN.**—On the 16th inst., by the Rev. D. H. Barron, assisted by Rev. David McKinney, D.D., George W. Smith, M. D., and Eliza B., daughter of Hon. Samuel Calvin, all of Hollidaysburg, Pa.

**DEATHS.**

**BARCLAY.**—Entered into rest, at Burlington, N. J., on April 11, Anne Wilks Collet, wife of the late John O'Connor Barclay, Surgeon U. S. N.

**BUCHANAN.**—Of consumption, February 5th, 1874, in the 60th year of his age, David B. Buchanan, son of Dr. John E. Buchanan, and grandson of Rev. David Bard.

**HARE.**—In this city, on the evening of the 18th instant, John J. Hare, M. D., in the 65th year of his age.

**WICK.**—In New Bethlehem, Clarion County, Pa., on Sunday, March 15th, at 12½ o'clock A. M., of cerebral disease, Dr. H. M. Wick, in the 59th year of his age.

**WINTER.**—In Washington, D. C., April 10th, 1874, of pneumonia, Homer Gibson, infant son of Dr. J. T. and Allie R. Winter, aged 4 months and 7 days.